MATERIAL DATA SHEET: CONCRETE AND STONE

CONCRETE/STONE

Typical items we accept:

- Masonry
- Hardcore
- Paving slabs
- Granite setts and kerbs
- Ceramics

Concrete is a building material mainly composed of cement, crushed rock or gravel, sand and water. It is the second most consumed material after water that shapes our built environment. In fact, twice as much concrete is used in construction around the world than the total of all other building materials, including wood, steel, plastic and aluminium.

Concrete and Stone products are 100% recyclable. Concrete recycling is important because it protects natural resources and eliminates the need for disposal by using the readily available concrete as an aggregate source for new concrete or other applications. Products can be crushed and recycled as aggregate for road construction and land reclamation thereby minimising the amount of material that is landfilled and reducing the need for virgin materials in new construction projects.

Increasing our usage of recycled materials has environmental benefits and financial gains as it preserves our precious natural reserves and avoids the aggregate levy. The demand for recycled, secondary sources of aggregates has doubled in the last 20 years. Many public projects now require a set percentage of recycled aggregates as part of their planning regulations. Construction companies that want to achieve the BREEAM standards for environmental performance of new and existing buildings are encouraged to use recycled aggregates from within a 30km radius. As landfill costs for construction, demolition and land-clearing debris continue to rise and the landfills become more heavily regulated, it makes economic sense to seek alternative means of disposal of concrete from construction and demolition operations.

OUR CONCRETE/STONE RECYCLING SOLUTION

Initially our waste acceptance criteria procedure is conducted in accordance with the WRAP Quality Protocol. Following mechanical pre-segregation exercises feedstock material is processed via our bespoke crushing/wash plants, conveyers and magnets. Primary and secondary screens may be used to produce different stockpiles as a finer screen will remove fine material from coarse aggregates. Impact and jaw crushers crush the material; metal contaminants are removed magnetically by a strong electro magnet before the material is jet washed and later agitated to thoroughly cleanse the material. The final washed and screened products are graded into materials with a specified size and quality. Further cleaning takes place to ensure the recycled products are free of dirt, clay, wood, plastic, and organic materials. This is done by water floatation, hand picking, air separators, and electromagnetic separators.

Sampling and laboratory testing is carried out on a scheduled basis which complies with the WRAP Quality Protocol enabling us to produce a range of certificated products. Our testing, inspection and certification service is conducted to ISO 17025 which relates to technical competence not only quality standards. A fully experienced chemist advises on all waste chemical matters. Every report states the BS code that has been used for the material test e.g. for DOT grading the BS used is BS EN 933-1: 1997

We have invested heavily in specialised crushing equipment to produce high quality crushed concretes to various grades, including the highest Department of Transport (DOT) certified material. Our recycled aggregates, available in all sizes and grades are ready for a whole host of different applications and can be delivered or collected by our reliable, low-emission fleet or collected from one of our Material Recycling Facilities. Our processing plants in London and Essex produce a range of premier washed recycled aggregates, either for ex works or delivered.

Our digital data capture systems enable us to provide complete chain-of-custody reporting from collection to final destination. Electronic waste transfer notes are issued for all materials we manage in compliance with your Duty of Care obligations.

The McGrath Group is accredited to various trade bodies and accreditations including PAS 402:2013. We also operate an integrated management system which is certified against international standards OHSAS 18001 (Health & Safety), IS0 9001 (Quality) and IS0 14001 (Environmental) and ensures our products and services are supplied safely, consistently and sustainably.

KEY FACTS

EWC Codes:

17 01 01
17 01 07

Percentage we recycle:
100%

Relevant regulations:
WRAP Quality Protocol
Highways Agency BS EN 1342:2002

Average CO2(e) saving per tonne recycled:
-0.02 tonnes (Defra)